

INCH-POUND

MS18130D  
18 January 1995  
SUPERSEDING  
MS18130C  
16 September 1985

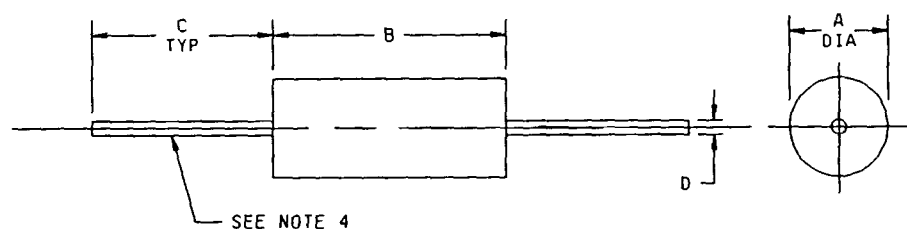
# MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED,  
MICROMINIATURE, (IRON-CORE)  
TYPES LT4K074 TO LT4K089

Inactive for new design after 16 September 1985.  
For new design use MIL-C-39010/6.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-C-15305.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.146 (3.71)	.166 (4.22)
B	.365 (9.27)	.385 (9.78)
C	1.250 (31.75)	1.625 (41.28)
D	.023 (0.58)	.027 (0.69)

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. These coils are intended to be supported by their leads.
4. Solderable/weldable lead wire, AWG number 22.

FIGURE 1. Dimensions and configurations.

(D) denotes changes

AMSC N/A

1 of 4

FSC 5950

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REQUIREMENTS:

Design, construction and physical dimensions: See figure 1.

Style: LT4  
Grade: 1  
Class: B

① Weight: 0.0247 ounce maximum.

Operating temperature range: -55°C to +125°C.

Ambient temperature: 90°C maximum.

Temperature rise: 35°C maximum.

Terminal pull: 5 pounds minimum, is not applicable in table VI, group B inspection of MIL-C-15305.

Altitude: 70,000 feet.

Shock, specified pulse: MIL-STD-202, method 213, test condition I, is applicable.

Dielectric withstanding voltage:

At sea level: MIL-STD-202, method 301, test voltage 1000 V rms for a minimum of 60 seconds.

At reduced barometric pressure: MIL-STD-202, method 105, test condition C, test voltage 200 V rms  
for a minimum of 60 seconds.

Electrical characteristics: See tables I and II.

Inductance: See table I.

Q values: See table I.

Self-resonant frequency (SRF): See table I.

DC resistance (DCR): See table I.

① Part or Identifying Number (PIN): MS18130-(dash number from table I).

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TABLE I. Electrical characteristics (initial).

Dash no. 1/ 2/	Type designation	Superseded MS part no.	Inductance ( $\mu$ H)	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance (ohms)	Rated dc current (mA)
-1	LT4K074	MS16225-1	.15 $\pm$ 20%	50	25	525	.03	2,450
-2	LT4K075	MS16225-2	.22 $\pm$ 20%	50	25	450	.055	1,810
-3	LT4K076	MS16225-3	.33 $\pm$ 20%	45	25	360	.09	1,400
-4	LT4K077	MS16225-4	.47 $\pm$ 20%	45	25	310	.12	1,225
-5	LT4K078	MS16225-5	.56 $\pm$ 10%	50	25	280	.135	1,150
-6	LT4K079	MS16225-6	.68 $\pm$ 10%	50	25	250	.15	1,100
-7	LT4K080	MS16225-7	.82 $\pm$ 10%	50	25	220	.22	900
-8	LT4K081	MS16225-8	1.00 $\pm$ 10%	50	25	200	.29	785
-9	LT4K082	MS16225-9	1.20 $\pm$ 10%	33	7.9	180	.42	650
-10	LT4K083	MS16225-10	1.50 $\pm$ 10%	33	7.9	160	.50	600
-11	LT4K084	MS16225-11	1.80 $\pm$ 10%	33	7.9	150	.65	525
-12	LT4K085	MS16225-12	2.20 $\pm$ 10%	33	7.9	135	.95	435
-13	LT4K086	MS16225-13	2.70 $\pm$ 10%	33	7.9	120	1.20	385
-14	LT4K087	MS16225-14	3.30 $\pm$ 10%	33	7.9	110	2.00	300
-15	LT4K088	MS16225-15	3.90 $\pm$ 10%	33	7.9	100	2.30	280
-16	LT4K089	MS16225-16	4.70 $\pm$ 10%	33	7.9	90	2.60	260

1/ The dash number added to MS military standard number constitutes the MS PIN; for example MS18130-1

2/ Former MS PIN's MS18130-17 through MS18130-26 have been superseded by MS14046-1 through MS14046-10, respectively.

TABLE II. Electrical characteristics (final). 1/

Inspection group	Allowable variation from initial measurement		Allowable percent from specified minimum value in electrical characteristics (initial) table	
	Inductance (percent)	DC resistance	Self-resonant frequency	Q
Qualification inspection				
Group II	$\pm 2$	---	---	-10
Group III	$\pm 5$	$\pm(3\% + .001 \text{ ohm})$	-8	-10
Group IV 2/	$\pm 5$	$\pm(2\% + .001 \text{ ohm})$	-10	-15
Quality conformance inspection group C				
Subgroup I	$\pm 2$	---	---	-10
Subgroup II 2/	$\pm 5$	$\pm(2\% + .001 \text{ ohm})$	-10	-15
Subgroup III	$\pm 5$	$\pm(3\% + .001 \text{ ohm})$	-8	-10

(D) 1/ Test fixture allowance of  $\pm .01 \mu$ H shall be added to all change in inductance limits  $\pm(\text{ } \text{percent} + .01 \mu\text{H})$ .

(D) 2/ The polarizing voltage during the moisture resistance tests is applied with the positive lead connected to the coil terminals tied together, and the negative lead connected to the metal strap.

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CONCLUDING MATERIAL

Custodians:

Army - ER  
Navy - EC  
Air Force - 85

Preparing activity:

DLA - ES

(Project 5950-0860)

Review activities:

Army - AR, ME, MI  
Navy - AS, MC, OS, SH  
Air Force - 17, 19